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Schoolscapes
The Newsletter

Building a Network of Resource Persons

By Phyllis Aronoff

Margaret Rioux-Dolan, director of general education for the youth sector, opened the November 27-28 training session on the new curriculum by telling the 600-plus participants, "We are asking you to be learners." She urged them to use what they would learn to go back to their schools and help them in turn become communities of learners.

The participants—mostly pedagogical consultants, administrators and teachers from school boards throughout the province—are called on to play a key role in the integration and application of the new curriculum in their schools. They will be resource persons who provide information, training and support to their school teams and involve their colleagues in a continuing process of constructing their own knowledge and changing their pedagogical practices.

Rioux-Dolan stressed that the education reform demands major changes in pedagogical practices and an understanding of the development of competencies in a social constructivist perspective. The *Québec Education Program*, she stated, is not a document to be left gathering dust on the shelf. Teachers and administrators will need to be thoroughly familiar with it in order to apply the new curriculum to teaching and evaluation.

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Reform Gaining Momentum at Secondary Level

By Phyllis Aronoff

With the new Elementary Cycle One curriculum just beginning to be applied and the preliminary version of the Cycle Two and Three curriculum being tested in pilot schools, educators are already looking forward to the development of the secondary school curriculum.

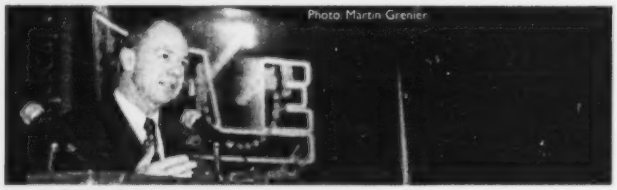

Photo: Martin Grenier

Claude Giroux, assistant director of general education for the youth sector, spent a few minutes at the opening of the training session discussing the work to be done in the coming months in developing the new secondary school curriculum. He began by pointing out that since the *Québec Education Program* sees education from preschool through secondary school as an integrated continuum based on the same fundamental competencies, a large part of the groundwork has already been laid with the development of the elementary school programs and the Program of Programs.

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Photo: Martin Grenier

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Building a Network of Resource Persons

"A better understanding of the development and evaluation of competencies is needed," said Rioux-Dolan. The three training sessions planned for this year will clarify the connections among the elements of the curriculum and help guide school teams in the use of teaching and evaluation practices conducive to student success.

A major focus of this session is the connection between the acquisition of knowledge and the development of competencies—and Rioux-Dolan pointed out that "in spite of what some people say, knowledge is still part of the curriculum." The evaluation of learning and measures for students at risk are other main areas that will be covered.

Additional training sessions, on cross-curricular competencies and the integration of culture into the curriculum, will take place on March 12-13 and May 29-30, 2001.

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Reform Gaining Momentum at Secondary Level

The particular nature of secondary school education must be taken into account in curriculum development, Giroux stated. Secondary school is divided into two learning cycles, a first cycle of three years and a second cycle of two years. Basic education is the same for all students in Québec until the end of Secondary Cycle One. Diversification is introduced in Cycle Two, when students are offered two main paths, general and vocational education, as well as a variety of options and a range of differentiated programs suited to different levels of ability in certain subjects.

The shift to cycle-based organization is more demanding at the secondary level than at the elementary, Giroux noted, because secondary school teachers, unlike those in elementary school, are subject specialists and because secondary school has a three-year cycle. This means that teams of teachers of each subject will share responsibility for the whole of Cycle One in their subject.

Photo: Martin Grenier

Time to do things well

With the application of the new secondary school curriculum slated for 2003, Giroux reassured the participants that "there is time to do things well and to make any adjustments that are needed." The process is already under way, and a number of committees have been set up to work on various aspects: an internal committee of the MEQ made up of people in vocational and technical education, evaluation and certification of studies; the actual program design teams; and advisory groups of university teachers and other experts in the various subjects.

Giroux concluded with the observation that "there is a momentum now" in the development of the secondary school curriculum, and that educators are ready to do some serious work on the issues involved.

CALENDAR FOR IMPLEMENTATION

Elementary Cycle Two and Three	
Preliminary version	June 2000
Testing	September 2000
Approved version	June 2001
Application	
Cycle Two	September 2001
Cycle Three	September 2002
Secondary Cycle One	September 2000
First draft	June 2001
Application	September 2003

The Mechanisms of Adjustment

By Claudine St-Germain
Translated by Phyllis Aronoff and Eve Krakow

In a speech filled with vivid images, Dany Laveault painted a picture of the role of adjustment in learning.

Dany Laveault is a professor who teaches measurement and evaluation in the Faculty of Education of the University of Ottawa, and editor of the journal *Mesure et évaluation en éducation*. He is therefore well placed to provide a definition of the adjustment of learning and to place this concept in context.

"When I think of adjustment, I see two images from the circus: a human pyramid and a plate juggler," Laveault said. "The pyramid shows how a group of individuals have to coordinate their efforts to maintain the balance of the structure as a whole. And the juggler has to watch every plate and give an extra little push to those that are slowing down, while keeping the others spinning."

These examples illustrate the definition of adjustment in Renald Legendre's dictionary of education: "A series of functions and actions designed to maintain the equilibrium of a complex system despite interference from the environment. Or, a series of functions and actions designed to modify the system in such a way that it adapts to conditions in the environment." (Our translation.)

Adjustment in everyday life

Dany Laveault also gave examples from everyday life to illustrate how adjustments can sometimes be inadequate or insufficient, such as that of a washing machine, where an adjustment can stop an action instead of causing one. As well, "an adjustment can sometimes be used to block erroneous representations in order to allow learning to take place." In the case of a sprinkler system equipped with a timer that starts it even in the middle of a rainstorm, the adjustment is not wrong, but too simple; it is not retroactive, interactive or proactive.

Finally, the example of a home heating system shows that it is sometimes necessary to make several adjustments to arrive at a comfortable temperature in all rooms. "Sometimes adjustments are needed on the individual level, and you have to take individual differences into account," explained Laveault. The teacher's objective is to reduce the distance between the student's current level and the next level higher, in order to achieve maximum learning with a minimum of teacher intervention. When we encounter this double objective, we see what is known as self-regulated learning."

These examples demonstrate how adjustment may be affected by three difficulties: there may be a loss or absence of control, either because the student does not perceive the problem or because he or she does not have a procedure to make the correction needed; there may be partial or ineffective control because the student

Photo: Martin Grenier

Photo: Martin Gremier

Dany Laveault
Professor, University of Ottawa

does not yet possess the observation skills that would allow him or her to carry out retroactive or proactive adjustments; or there may be a more or less self-regulated control in which the teacher is called on to intervene from time to time.

"The concept of adjustment is extremely useful for understanding learning situations," said Laveault. "It allows us to see learning as a system and to act simultaneously on the social, cognitive and relational aspects."

Laveault explained that adjustment can also fail, as when an individual tries to achieve too many objectives, does not know the criteria that are being used to judge his or her action, or stops paying attention to what he or she is doing, either because of previous negative experiences, lack of interest, or some other reason; a person may not make the necessary efforts because of chronic problems or temporary factors (such as fatigue), or because of negative external conditions.

The "Nintendo effect"

"Very few students want to just stay in the same place," said Laveault. Often students will set an objective that is more demanding the next time. I call this the 'Nintendo effect,' this human quality of motivation, this proactive tendency to keep setting new limits and aiming for new heights."

"Human beings are motivated not only to reduce their distance from the goal they want to reach but also to continually set higher goals," Laveault continued. "It's typically human not to want to settle for what you've got, and to always want more."

Nevertheless, we mustn't overestimate children's capacity for self-adjustment. "Piaget's research shows that we have to be realistic about the possibility of making sudden changes in the type of adjustment children are capable of. This explains how it is that children can persist in making the same mistakes in spite of our efforts to make needed adjustments. At each stage of their development, new adjustments become possible, as well as adjustments that are increasingly complex in cognitive terms."

In the *Draft Policy on the Evaluation of Student Learning*, adjustment is defined as an "evaluation-related process whereby the teacher or student makes changes so that the student can continue to make learning progress." In order for there to be an adjustment, however, a certain number of elements are necessary: an objective and a standard, in order to determine the progress being made toward the desired goal; feedback, in order to keep track of the distance remaining to the goal; and an action to reduce the gap between the student's current situation and the desired situation.

"The quality of the adjustment also depends on its purpose," explained Laveault. "Vague, distant or multiple objectives, unclear standards or incomplete feedback will not help teachers or students to make adjustments. Objectives that are clear but too easy will not lead to effective feedback or adjustments either; it is rather tedious for students who 'overperform' to evaluate themselves. Interest in self-evaluation disappears when it no longer has meaning."

Who can make adjustments? Anyone involved in evaluating students, said Laveault—the students themselves, the teacher, the parents or other students in the class. He gave the example of an activity in which students build a model: the more talented students may provide assistance to those having difficulty. In this way the teacher can make adjustments by anticipating and reducing the individual differences among the students, that is, by using the help that students can give each other.

"Too often, adjustments are global and undifferentiated, and modify teaching and learning materials at the group level rather than at the individual level," said Laveault. "In order to adjust the materials to the individuals, education professionals must demonstrate more flexibility and openness—in other words, they must plan differentiated situations. The learning that takes place will not be the same for everyone, but there can still be progress in the acquisition of the competencies in the program."

Regulating the environment and the individuals

Until now, education professionals have opted mostly for adjustments to the learning environment, since these are the easiest to see and the most concrete. (It is much easier to act on the environment than on what is going on in a child's head!) However, it is also important to consider adjustments that can be made on an individual level. "Sometimes it is hard to know what impact adjustments have on students," noted Laveault. "But we do not need to know. Many adjustments aim to motivate and to encourage students to learn, and in the majority of cases it is impossible to differentiate them because they all play a part in helping the student develop as a whole person."

Adjustments can be made regarding various aspects of children's intellectual development: the attention they devote to a task, their goals, the desired performance, their own standards. "There are a great many possible permutations of these adjustments on an individual level, each with its advantages, depending on the competency to be acquired, the student's prior learning and the context. It is important to consider this wide flexibility when making adjustments."

Self-regulation

One of the most important forms of adjustment is self-regulation; this occurs when students play an active role in their own learning. "Our education system aims not only to encourage learning by young people, but also to develop their autonomy, so that the regulation of this learning can eventually be carried out without external help," he explained. "Adjustments that come from outside should help prepare students to eventually take greater control over their activities."

However, children should not be left completely on their own at the beginning. Initially, self-regulation is planned by the teacher, who has the students apply it in small doses. For example, the teacher may let students regulate their own activities, but will set the learning objective for them. It is also possible for there to be too much or not enough external regulation. For example, a parent who does not wait for a child to have enough balance before removing the training wheels of the child's bicycle would not be providing enough regulation; however, the parent who leaves them on too long is demonstrating excessive regulation. "The control of learning is now being decentralized toward the student, but this transfer of responsibility from teacher to student should not be made without proper preparation."

Laveault concluded his presentation with the following quote: an education program "should prepare the ground for a new pedagogy centred on experience, concrete examples, the intuitive method, and respect for the preliminary steps in the development of potentialities." Is this an excerpt from *Québec Schools on Course*? No, it is from a treatise on education written in 1649!

Photos: Martin Grenier

Making Connections

Linking Classroom Activities, Content and Competencies

By Eve Krakow

One of the concerns expressed in previous province-wide meetings has been how knowledge and understanding are to be integrated into the competency-based approach set forth in the *Québec Education Program*. This was therefore the focus of the first workshop of the two-day training session: participants were asked to create or analyze a classroom activity and to identify the connections between the acquisition of knowledge and the development of competencies.

Teams were given a choice of two exercises. In exercise A, they had to create a classroom activity that was based on competencies selected from a program of study and that incorporated the learning content prescribed in the program. In doing so, they were asked to think about two questions: What is the connection between the chosen competency or competencies and the knowledge/understanding? How does the content included in the program of study selected contribute to the development of different competencies (subject-related or cross-curricular)? Participants who chose exercise B had to go through a similar process, but instead of creating an activity, they analyzed one that was already prepared.

Cultural connections

Among the groups that decided to create their own classroom activity, those with participants from different school boards—and particularly, different cultures—achieved some unexpected results. One project that participants found especially interesting was a cultural exchange between students from the Cree School Board and the Western Québec School Board.

The idea was to have a group of students from the North (Cree School Board) visit students in the South for one week, and vice-versa. The theme of the exchange would be "Goose Break," a time when Aboriginal students have a holiday from school to go hunting with their families. Before the exchange, the students would correspond through e-mail, sharing and learning about each other's culture. During the exchange, the Aboriginal students from the North would show the students in the South how to make a tamarack bird decoy, which is used during the hunt. "The students from the South would then go up North at the end of Goose Break to take part in the feast and ceremonies," the group's spokesperson explained.

The project would involve subject content in geography, history and citizenship education, as well as visual arts; it would also call on several intellectual, methodological, personal and social, and communication-related competencies. "We never would have come up with this activity if we hadn't happened to be sitting here with people from the Cree School Board," said Mary Louise Rodgers, a teacher from the Western Québec School Board, who is enthusiastic about trying to make the project happen.

Content connections

The classroom activity that participants had to analyze in exercise B used two poems—*My Shadow*, by Robert Louis Stevenson, and *Visit*, by 11-year-old Eve Recht (Australia)—as a springboard for a number of integrated activities combining English Language Arts, Drama, Dance, Visual Arts and Music. The proposed activity begins with the teacher reading the poems aloud to the class. Students think about how they felt and what they saw in their head while the poem was being read, they discuss the differences between poetry and prose, they chime in during their favourite parts, etc. Related activities then involve students inventing dramatic scenes and using puppets to represent one of the poems, or creating an original dance to a musical score they select. Finally, the students present their production to parents and the school, which includes planning and promoting the event.

Workshop participants were to analyze the activity by establishing connections and relationships with competencies and elements of the subject content. What is perhaps most important is not the exact results of each group's brainstorming, but their process, as school and cycle teams will have to go through this same process in developing teaching activities.

"In this activity, the content was strong in terms of poetry and the arts. So we then had to look at the interplay between this content and the development of competencies," said Norm Horner, pedagogical consultant for the Lester-B.-Pearson School Board, as he reflected on the exercise afterwards. "To do this, we had to look deeper into the competency, to analyze it and to look at its key features. Because the key features show how children learn."

The importance of carrying out this in-depth analysis was also brought out during the workshop. For the intellectual competency of solving problems, for example, it is important to realize that the competency involves more than just having students figure things out: the competency has a structure that includes analyzing the problem, formulating possible solutions, selecting one, implementing it and evaluating the results.

One of the difficulties faced by several groups in the workshop was narrowing in on specifics. They found links to so many different competencies, both subject-specific and cross-curricular, that they found it difficult, in the short time available, to isolate one to analyze. This did not detract from the value of the exercise, however. "It showed us that we really have to focus on our objective. . . . If anything, the reform allows us to do this by offering us a detailed explanation of time-honoured traditions of teaching that have been going on for years but which we never took the time to study. Now we are looking at *why* we do what we do," said one participant.

And while some groups felt they lost sight of the whole in trying to make links to specific elements of the competencies, others felt just the opposite. Said another participant, "We learned that all the competencies are complementary—one flows from another. . . . This exercise helped us see how everything comes together and to put it all into perspective."

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